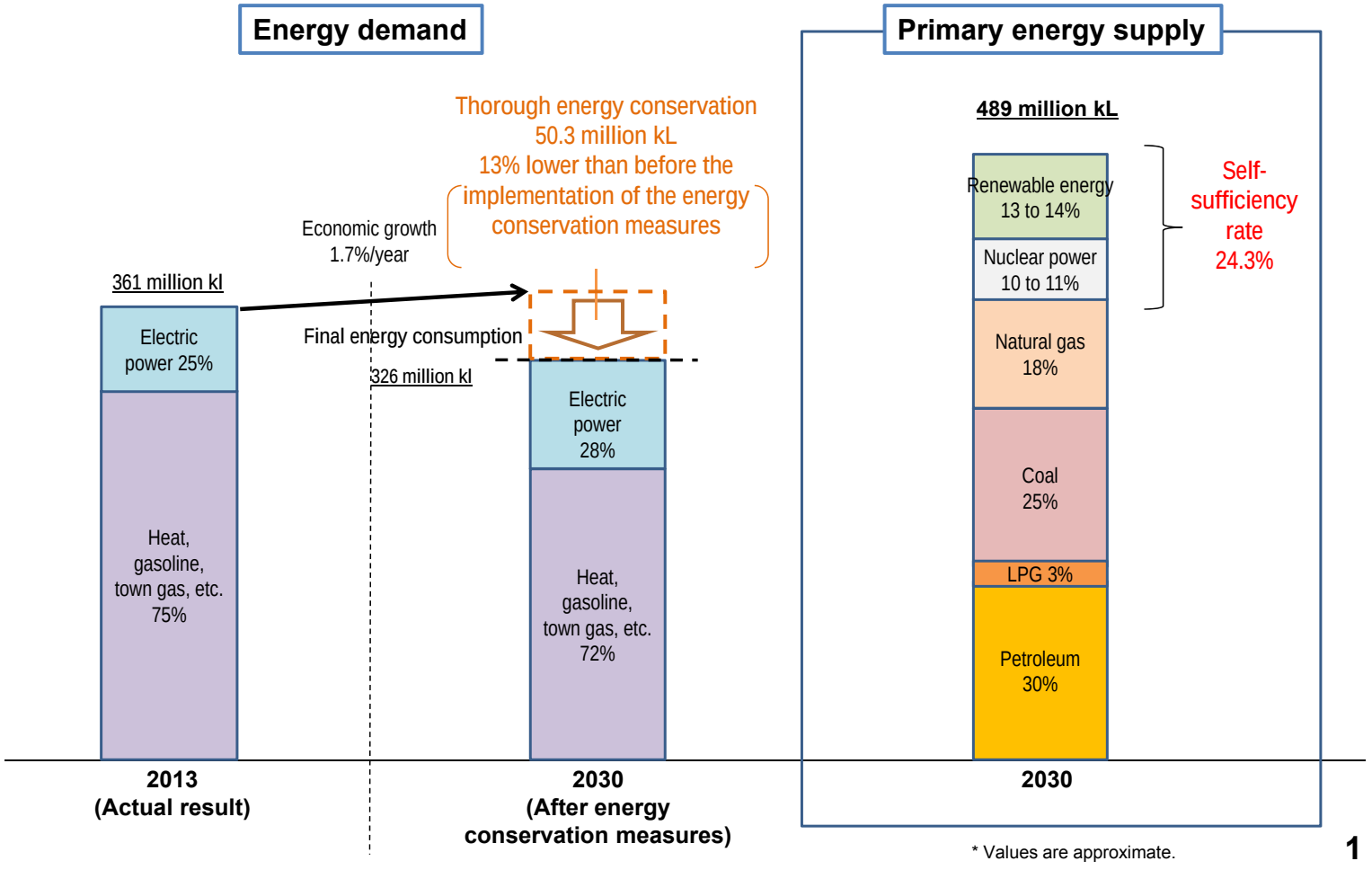
METI
Ministry of Economy, Trade and Industry

Japan's Energy Policy

Yuki Sadamitsu
Director, Oil and Gas Division
Ministry of Economy, Trade and Industry of Japan

1. Energy demand and primary energy supply



2. Japan continues to be the largest LNG player despite its demand decrease

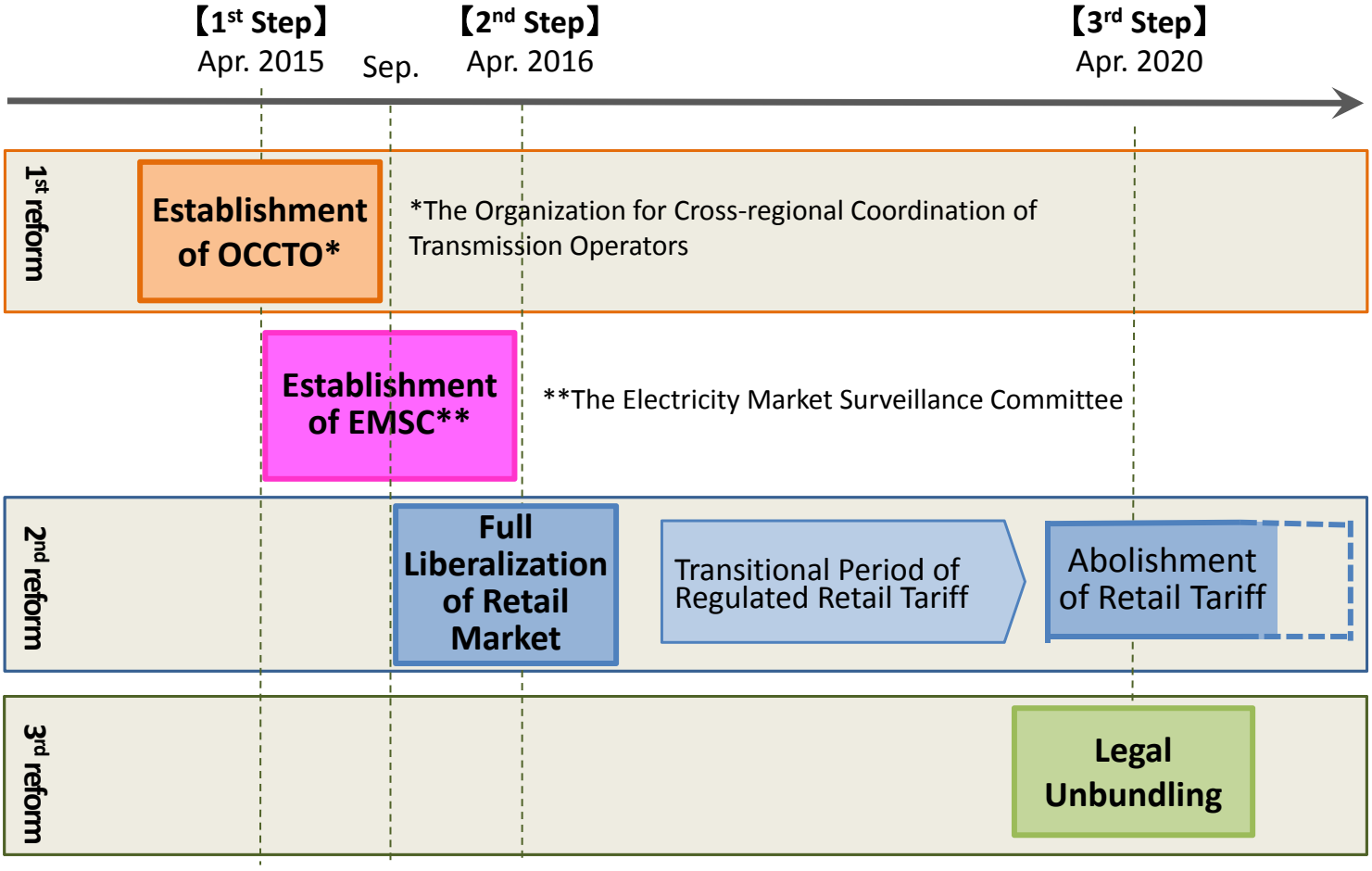
Ratio of Each Energy Source in Primary Energy Supply

	1970	2010	2012	2030
Fossil Fuel	92%	82%	92%	76%
Others	8%	18%	8%	24%

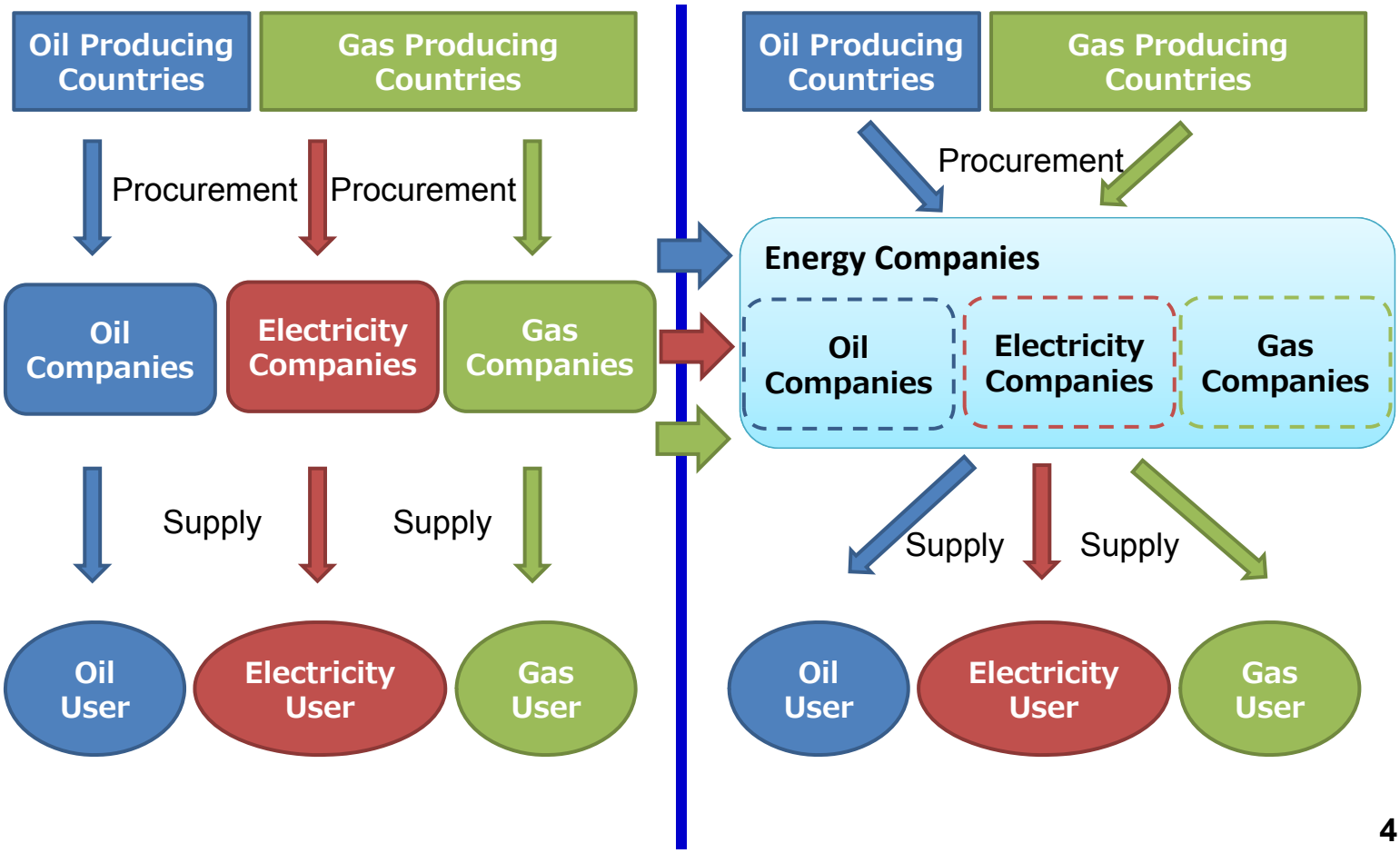
	1970	2010	2012	2030
Oil	70%	40%	44%	33%
Coal	21%	23%	23%	25%
Natural Gas	1%	19%	**25%**	**18%**

	1970	2010	2012	2030
LNG	1 million ton	71 million ton	**90 million ton**	**62 million ton**

3. Electricity Market Reform Roadmap

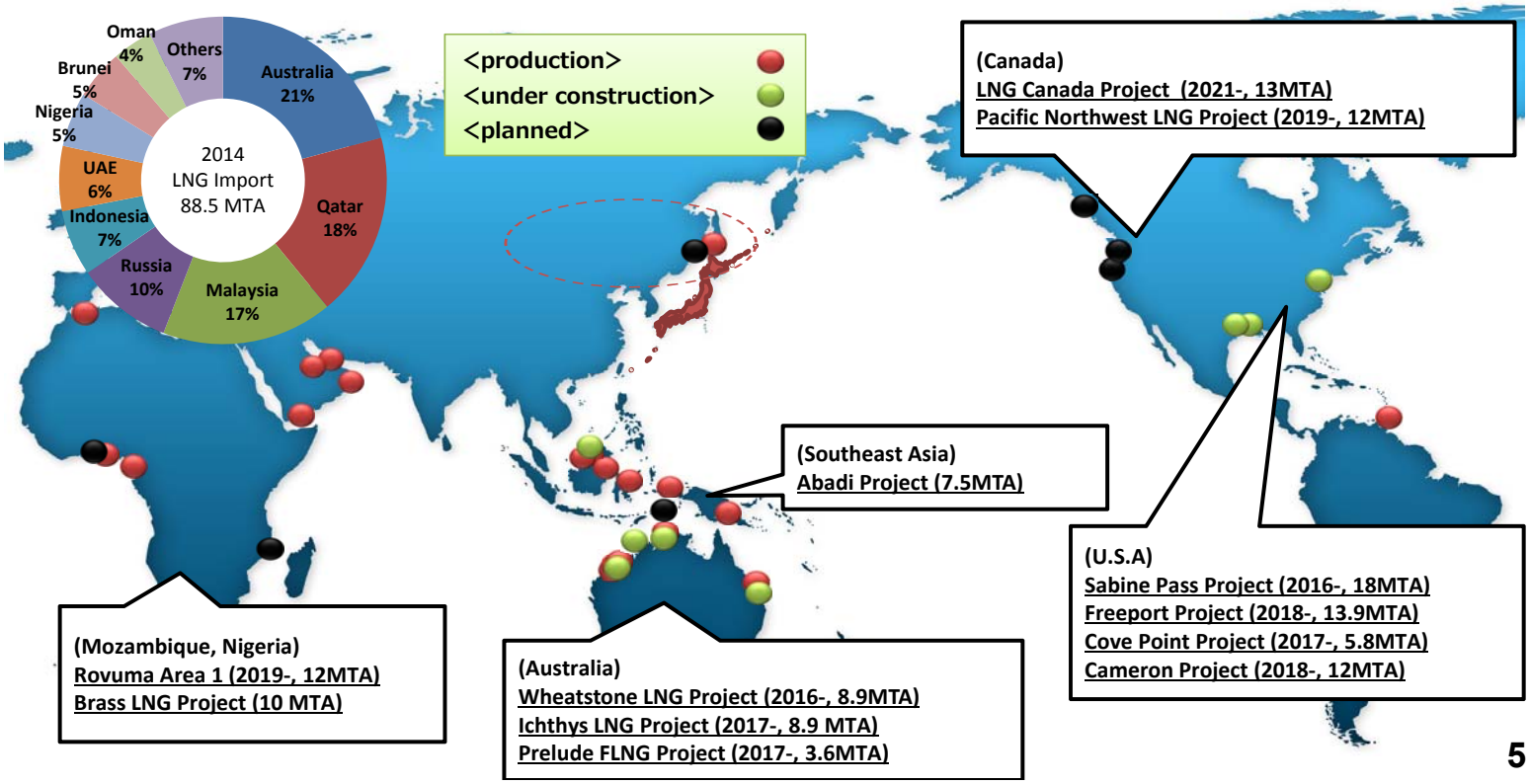


4. Japanese energy system reform puts Japanese utilities under competition



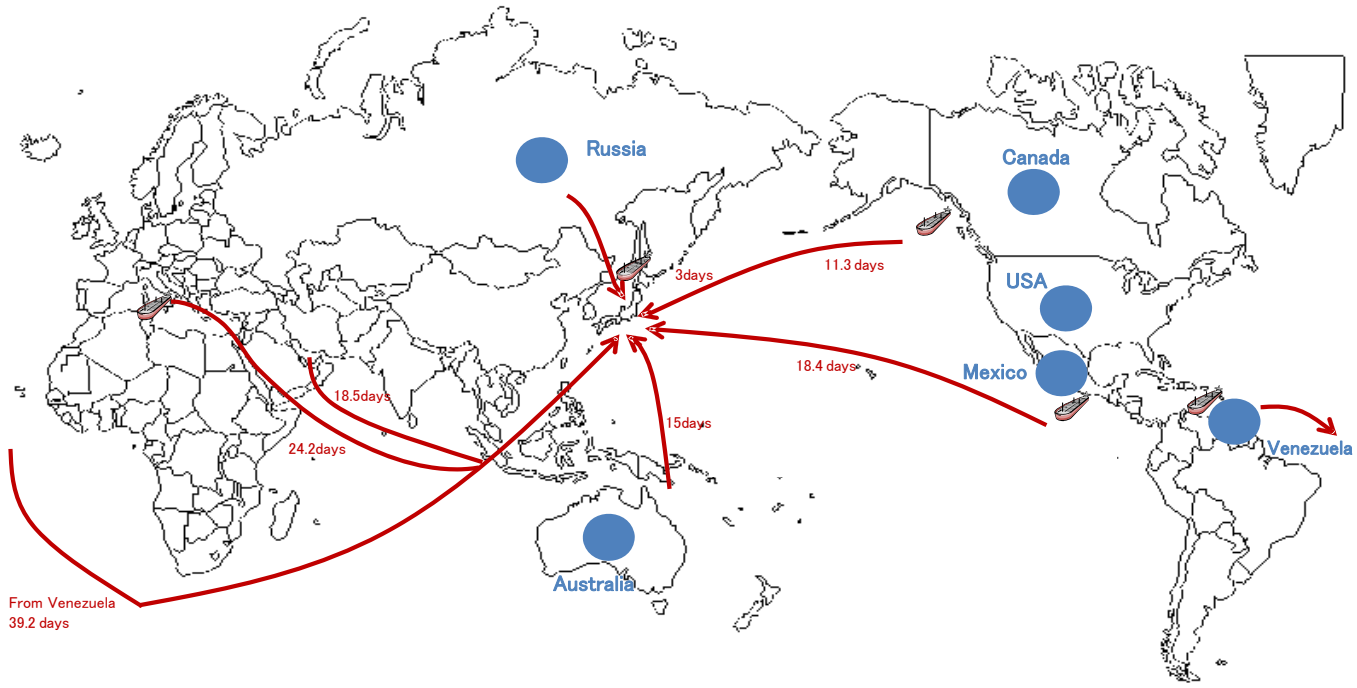
5. LNG Procurement Strategy – Diversification

- Japan has tried to mitigate supply disruption and secure stable supply by diversifying supply sources. In June 2014, Papua New Guinea became a new supplier.
- Japan has a diversified portfolio with the largest supplier only accounting for 20% of total supply and the Middle East dependency at 30%.



6. Oil Procurement Strategy – Diversification

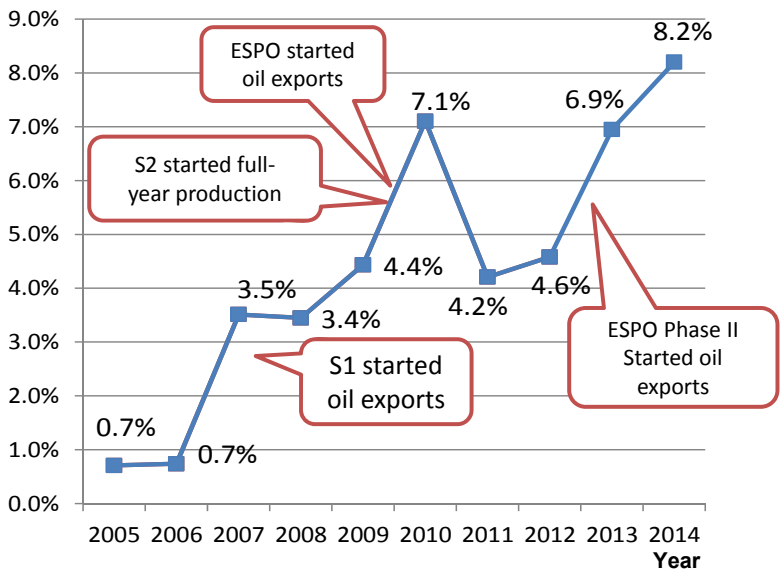
- Japan is dependent on the Middle East for its crude oil imports (83%).
- Russia is the largest oil supplier except the Middle East (8%).



7. Increased importance of Oil & LNG import from Russia

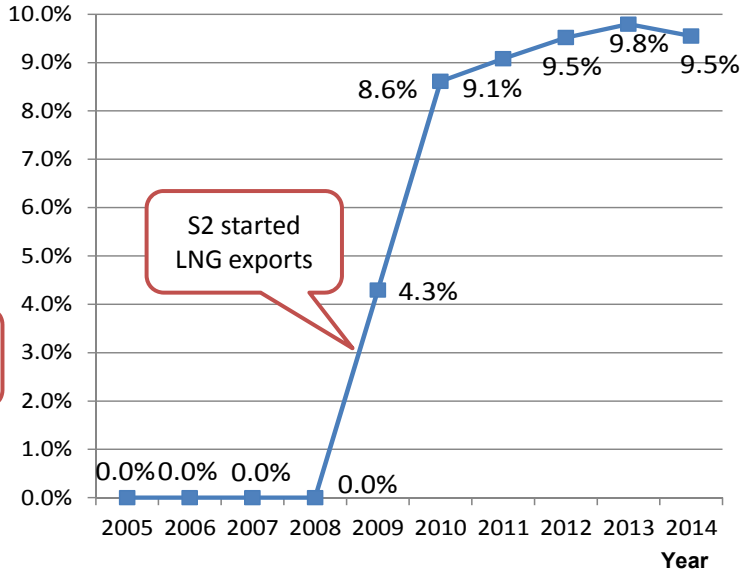
- In addition to oil imports from Sakhalin I (2005) and Sakhalin II (1999), the construction of ESPO (2009, 2012) has led to the increase of oil imports from Russia. Currently, Japan imports 8% of its oil from Russia.
- Japan imports 10% of its LNG from Sakhalin II, which started LNG exports to Japan from March 2009.

Russian shares in Japan's total oil imports



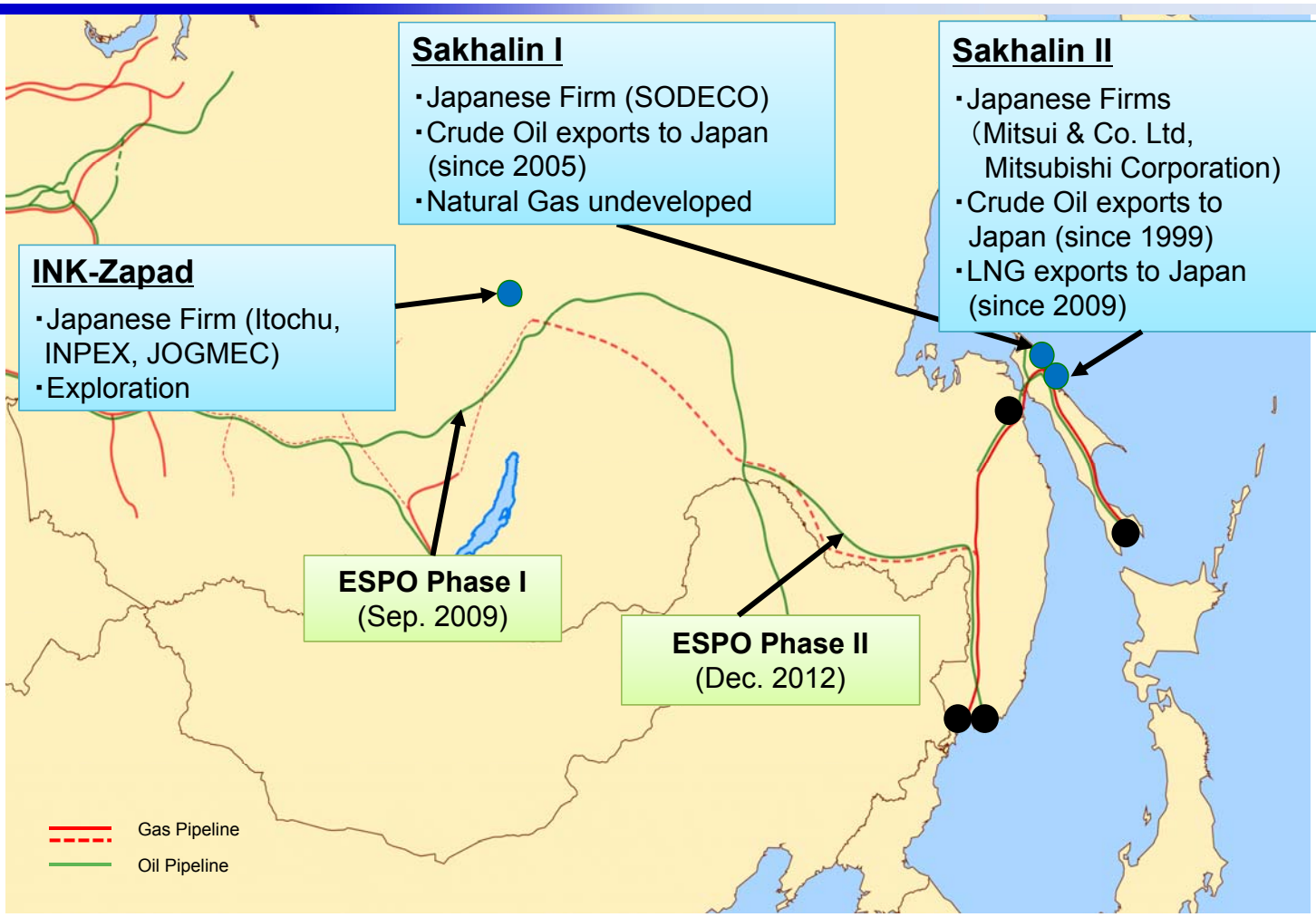
Source : Natural Resources and Energy Statistics

Russian shares in Japan's total LNG imports



Source : MOF Trade Statistics

8. Russia and Japan cooperation projects



9. Domestic resource development (Methane Gas Hydrate)

1. Deep Methane Gas Hydrate

1. Offshore Production Test

- From March 12-18, 2013
- World's first offshore methane gas hydrate production by the depressurization method
- Total output: 120,000 cubic meters
  Ave. daily output: 20,000 cubic meters

Flare from offshore production test

2. Cooperation with USA

- Based on the Statement of Intent which singed in 2008, JOGMEC of Japan and NETL of the USA singed MOU concerning Japan-U.S. Collaboration on Methane Hydrate research in Alaska on Nov. 6, 2014.

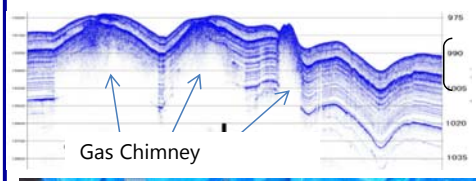
2. Shallow Methane Gas Hydrate

1. Evaluation of the resource reserves

- Shallow methane gas hydrates mainly exists in the Sea of Japan.
- Evaluation of the resource reserve(2013-)
- Conducted geological research in 2013 and 2014, discovered 971 potential areas with gas chimneys.
- Drilling survey of shallow methane hydrate in 2014

2. Current Status

- Conducted detailed and wide-area geological research and core sampling



Example of cross-section diagram of the sea bed

Core samples shallow methane hydrate